

## CLAIMS:

1. A display apparatus (1) comprising:
  - an electrophoretic medium (5) comprising charged particles (6) in a fluid;
  - a plurality of picture elements (2);
  - a first and second electrode (8,9) associated with each picture element (2) for  
5 receiving a potential difference; and
  - drive means (100) arranged to:
    - a) supply a sequence of picture potential differences to each of said picture  
elements (2), each of said picture potential differences having a picture value  
and an associated picture duration, the product of which represents a picture  
10 energy for enabling the particles to occupy one of the positions for displaying  
a picture; and
    - b) supply one or more inter-picture potential differences between at least two  
consecutive picture potential differences, said one or more inter-picture  
potential differences having an inter-picture value and an associated inter-  
15 picture duration, the product of which represents an inter-picture energy which  
is insufficient to substantially change the positions of the particles;
- the apparatus (1) further comprising memory means (104) for receiving data representative of  
the picture energy and inter-picture energy of all potential differences applied to each picture  
element (2), and providing a running total thereof for each picture element (2), the drive  
20 means (100) being arranged to select the polarity of said one or more inter-picture potential  
differences such that the magnitude of said running total for a respective picture element (2)  
is reduced.
2. Apparatus (1) according to claim 1, wherein a time interval is provided  
25 between each inter-picture potential difference applied to a picture element (2).
3. Apparatus (1) according to claim 2, wherein said time interval is of the order  
of 0.5.

4. Apparatus (1) according to any one of the preceding claims, wherein the pulse time-period of each inter-picture potential difference is 2-8ms.
5. Apparatus (1) according to any one of the preceding claims, wherein the value of said inter-picture potential differences is substantially the maximum voltage available on the drive means (100).
6. Apparatus (1) according to any one of the preceding claims, wherein one or more of said inter-picture potential differences have an inter-picture value below the threshold voltage of the ink materials used in said display apparatus.
7. Apparatus (1) according to any one of the preceding claims, wherein the number and polarity of said inter-picture potential differences are stored in the memory means (104).